

Prentiss (D.W.)

A REPORT OF FIVE HUNDRED CONSECUTIVE CASES OF LABOR IN PRIVATE PRACTICE IN THE DISTRICT OF COLUMBIA, BETWEEN THE YEARS 1864 AND 1888.

✓ BY

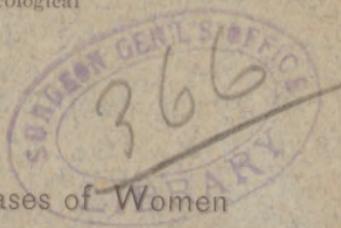
366

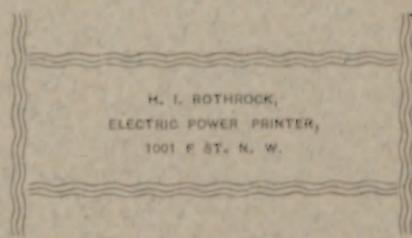
D. W. PRENTISS, A. M., M. D.

Professor of Materia Medica and Therapeutics, Medical Department of the Columbian University of the District of Columbia, Member of the American Medical Association; Association of American Physicians; Medical Society of the District of Columbia; Medical Association of the District of Columbia; Washington Obstetric and Gynaecological Society of the District of Columbia, etc.

REPRINTED FROM THE
American Journal of Obstetrics and Diseases of Women
and Children, September 1888.

READ BEFORE THE
WASHINGTON OBSTETRIC AND GYNAECOLOGICAL SOCIETY OF
THE DISTRICT OF COLUMBIA, APRIL 20, 1888.





H. L. BOTHROCK,
ELECTRIC POWER PRINTER,
1001 F ST. N. W.

With the Compliments of the Author.

A REPORT OF FIVE HUNDRED CONSECUTIVE
CASES OF LABOR IN PRIVATE PRACTICE IN
THE DISTRICT OF COLUMBIA, BETWEEN
THE YEARS 1864 AND 1888.

*Read before the Washington Obstetrics and Gynaecological
Society, of the District of Columbia, April 20, 1888.*

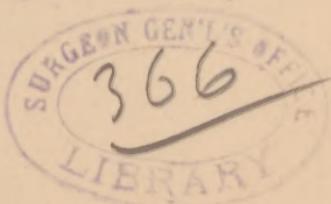
I have thought it might be of interest to bring to your notice a report of the obstetrical cases that have occurred in my practice during the past twenty-three years, that is, since I first entered upon the practice of medicine.

The number of cases up to the 1st of October, 1887, has been five hundred.

During the earlier years of practice, the record has not been as complete in details as might have been wished, but still facts enough may be gleaned from the total to add some little to the statistics of private practice in obstetrics.

As a fitting introduction to these dry statistics, it will be of interest and possibly instructive to very young members of the profession to mention some of the facts of my first labor case.

It was shortly after I had placed upon the outside door-post the momentous announcement of my readiness to sacrifice my time and talents for the relief of suffering humanity, I received a call one day from a dusky denizen of the alley in the rear of my dwelling, so graphically described by my colleague on the right, at a recent meeting of this Society, as the favorite haunt of diphtheria.



The dark-skinned messenger urged my immediate attendance, as his daughter was very bad with "de misery in de stomach." I saw the daughter at once and found a severe case of cramp colic, for which, after due inquiry, I prescribed Squibb's mixt. and took my departure. In about an hour came another urgent message that the patient was "tuk wusser."

On seeing her again, I noticed that the abdomen was very much enlarged, and a cramp coming on while my hand was on the abdomen, I found it became very hard.

Suspicion was excited which further examination confirmed, though the young woman had never received the connubial blessing of the priest. After much hesitation and modest reluctance, I ventured to make my first vaginal examination, and to my horror found the whole passage occluded by a hard, round tumor.

What was to be done? Manifestly the child could never find egress with this immense tumor in the way. I sat fingering it all around and cudgelling my brains to remember what Prof. Penrose had told us should be done in cases of tumors in the vagina blocking labor, when a pain came on and the tumor pushed my finger out of the way, and another colored soul was added to the census of the District of Columbia. The problem was satisfactorily solved. Nothing daunted, I removed the placenta and finding a slight rupture of the perineum, calmly sewed it up. Mother and child made a good recovery.

I have not recounted this case at some length without an object. My object is to call attention to the fact that, a generation ago, the majority of medical students were graduated with only a theoretical knowledge of midwifery, without ever seeing a case of obstetrics, and I fear the same cause of complaint is true to much too great a degree at the present day.

When I graduated from the University of Pennsylvania in 1864, I had never seen a case of labor, nor ever made a vaginal examination, so that when I felt this infant's head at the inferior strait, I thought it was some kind of horrible tumor.

Of course, such a state of things should not exist. Clinical instruction in obstetrics is quite as important to the student as in surgery or practice of medicine, and if my lamentable example will be of any influence in stimulating clinical instruction to future graduates, I shall not regret having exposed my own youthful ignorance.

Apropos of this same subject is an anecdote told by the Philadelphia professor of obstetrics of a young physician who came to him from a Southern State for post-graduate instruction. The young man had graduated with honor the year before, and settled for practice in his native place.

He was engaged to attend in confinement the young wife of a planter, a very important case for him. The time arrived, pains began, and the doctor was sent for. When ushered into the presence of the patient, he put on his wisest look, and propounded the usual queries; then conversed of the weather, the cotton crop, etc., until finally the nurse suggested that he make an examination. The fatal hour had come. "Oh, yes, certainly," he said, but his heart misgave him. The lady was sitting on the nurse's lap. The nurse proposed that she lie down. Now was his chance to show his skill and familiarity with such occasions.

"Oh, no," he said, "you need not lie down, I will make it just as you are."

So he proceeded to insinuate his hand carefully under the clothing, passed it along the adductor muscles, and was just about to insert the index digit into the vulva, when the nurse suddenly screamed, "you naughty man, you, take your hand away."

Was that doctor confused, mortified, chagrined, annihilated?

The story does not say, but he returned to his office an humble contrite man, packed his trunk and went to Philadelphia for further practical instruction in the great art of making vaginal examinations. And such, gentlemen, professors of obstetrics collectively, may be the sad experience of any of your graduates who fail to receive the necessary clinical teaching in this department.

It has been a difficult labor, Mr. President, to tabulate this series of cases from the visiting lists of the various years, and to classify the data which I present to you this evening.

And in this connection I wish to acknowledge the kind assistance of my friend, Dr. W. K. Butler, without whose help it would have been impossible for me to have put the material together.

In tabulating the cases, the following points have been considered :—

1. The average length of gestation from the first day of menstruation.
2. The average time from first day of menstruation until quickening.
3. The sex of children.
4. The sex of children of primiparæ.
5. The average number of pregnancies.
6. The average weight of children, males and females.
7. The duration of labor.
8. Presentations.
9. Average ages of parents.
10. Number of cases of twins.
11. Oldest and youngest primipara.

These refer to normal labors.

Then comes mention of the complications of labor observed, such as forceps cases, hour-glass contraction, adherent placenta, congenital hydrocephalus, placenta previa, monstrosities, etc.

1. Average length of gestation from first day of menstruation is given in $256\frac{1}{3}$ cases, and is 278 days.
2. Average length from first day of menstruation to quickening in 119 cases is $133\frac{1}{3}$ days.
3. Sex of 413 infants: males, 203; females, 210.
4. Sex of infants of primiparæ, 92 cases: males, 48; females, 44; males predominate.
5. Average number of pregnancies to each mother in 363 cases: 1,232 pregnancies, $3\frac{1}{3}$ average.
6. Average weight of children in 239 cases, 8.2 lbs. 135 males, 8.4; 104 females, 8.
7. Average duration of labor, from the time pains first began to be regular and characteristic: in 271 cases, $10\frac{1}{2}$ hours; in 69 primiparæ, 16.8.
8. Presentations and positions. 279 vertex presentations: vertex, 97 (vertex only mentioned); v. 1, 133; v. 2, 21; v. 3, 6; v. 4, 16; v. 5, 4 (v. to *os pubis*); v. 6, 3 (v. to prom. of sacrum).
Eleven breech presentations: breech only mentioned, 6; b. 1, 3; b. 4, 2.
Face, 2 cases: footling, 2 cases; head and breast, 1 case; body, 1 case; shoulder, 2 cases; brow, 2 cases.
9. Average age of parents:
Mothers under 25 years, 106; between 25 and 35, 180; 35 and over, 78=364.
Fathers under 25 years, 32; between 25 and 35, 171; 35 and over, 147=350.
10. Number of cases of twins, 5.
11. Youngest primipara, 15 years (first case); oldest primipara, 38 years. Both had normal labors.
I present these statistics without comment for what they are worth. I have not compared them with the general statistics on the subject.

Forceps cases number 43.

In 6 cases the cause of using the forceps is not stated.

In 26 cases it is variously stated, as tedious labor, feeble pains, rigid os, rigid perineum, uterine inertia, etc. In 2 of these cases the presentation was v. 4; in 2, v. 6; in 1, v. 3; and 1, v. 5.

All of these cases may be classed as delayed or tedious labor.

In most of them labor would probably have terminated naturally without forceps; but the use of instruments saved the mother much suffering, and I have no doubt saved the lives of some of the infants.

We have then: tedious labor, etc., 26; anchoylosed coccyx, 2; hour-glass contraction, 2; brow presentation, 2; convulsions, 1; face presentation, 2; head and breast, 1; hydrocephalus, 1; not stated, 6. Total, 43.

One fact in connection with the forceps cases, which I feel constrained to put on record, but of which I am not proud, and which is open to just criticism, is that forceps were not used at all up to the 160th case.

This is an open confession that carries with it a moral, bearing upon the question with which this paper started out, namely, the importance of giving medical students clinical instruction in the practice of obstetrics.

How is the fact that one hundred and fifty-nine cases of labor were attended without forceps having been used—these cases being consecutive from the first one? Speaking very candidly, as I review the question, I believe there are two principal reasons: First, a want of familiarity with the class of cases in which these instruments are useful, and lack of confidence as to the technique of their application.

Second, the young practitioner has more time and patience at his command to wait calmly the course of events.

As to the first of these reasons, the moral is evident: that the newly-fledged doctor should have received, by clinical

instruction at the bedside, the *practical* knowledge of the mode of conducting labor—just when and how he may assist with advantage—that otherwise he must learn by experience when in actual practice.

As to the second reason, that a young practitioner has more time and patience to wait upon nature in serious cases (I am aware that thus stating will subject me to the fiery darts of criticism from the learned members of this Society, but believing it to be not devoid of truth, I make the statement). I speak, of course, only of my own experience. Perhaps, with another, it might be different, and instead of possessing his soul in patience, he might prematurely long for the opportunity of showing his skill with forceps, to the detriment of the patient.

In looking back over these one hundred and fifty-nine cases spared the forceps, I do not see but what they fared as well ultimately as the next one hundred and fifty-nine, which might be used as an argument against forceps, without, I think, proper consideration. It is probable that many of the mothers might, at least, have been saved suffering by their judicious use.

It will be seen that in by far the largest number of forceps cases the cause has been "tedious labor," "ineffective pains," "uterine inertia," all of which come to the same thing.

It is in this class of cases that the sound judgment of the attendant is tested—to determine just when the time for interference comes that shall be of most advantage to mother and child. I dismiss the convenience of doctor in hastening the close of case as unworthy. Further discussion of this question I leave to the Society.

In two cases, forceps were used for ankylosis of the coccyx—the bone yielding as the head advanced. Both cases recovered without trouble, and in both cases the

mothers were young. In one, 22 years (case 215); in other, 21 years (case 483).

Thus it will be seen that forceps were used forty-three times out of 340 labors, a percentage of 12.64.

Number of cases of twins, 5; number of cases of congenital hydrocephalus, 2.

In neither of these cases was the hydrocephalus extreme, but sufficient to interfere materially with the progress of labor.

Case 292. Hydrocephalus, fourth child, previous children healthy.

The first indication of anything wrong in this case was the head stopping at the superior strait, though the position was favorable and the pains strong. After waiting a reasonable time, I applied forceps, but they slipped off without advancing the head. This was repeated a great many times with the same result. I could pass my finger all around the head, but failed to recognize the trouble. Dr. J. Taber Johnson was called in consultation, and repeated my efforts with the forceps with the same result. The woman by this time showing signs of exhaustion we decided to turn. This was done, and the child delivered after very severe efforts. Then the hydrocephalus was discovered, but the head was very little enlarged beyond the normal diameters. It acted in the labor like a bladder filled with water, giving no purchase to the instruments and, like a bladder of water, admitted of no compression in its passage through the pelvis.

The second case of hydrocephalus was the seventh child of its mother, all the others being healthy.

It was a breech presentation, and all went well until the head engaged in the superior strait, when it refused to advance any further. After using all the force in traction on the neck that I thought justifiable, I applied forceps, when, behold, they slipped off with that same peculiar feeling that attended the previous case. Repeated efforts with the instruments had the same result. I sent for assistance, but before it came I finally succeeded in delivering the head. Its condition was almost identical with the one just described, very

little larger than normal, but baggy from the separation of the sutures with water, and incompressible.

The reason why the forceps slipped off is apparent, and in these cases at least was a diagnostic point of the water-head.

Placenta previa.—There were four cases of placenta previa. Two were fatal; colored women attended by ignorant midwives. One was dead when I reached the house, and although three doctors answered the emergency call, we were unable to remove the child. We turned, and progressed favorably, until the head engaged the superior strait, where it stayed, all our efforts to the contrary notwithstanding. Amputation of the neck was done and the head left *in utero*—not altogether an obstetrical proceeding; but, as mother and child were both dead, and the doctors exhausted, it may be excused. This may have been another case of water-head.

The other fatal case of *placenta previa* was *in articulo mortis* when I saw her. She had been flooding all night, with a midwife beside her, until five o'clock in the morning. When I was called two blankets and the mattress under her were saturated, and the blood dripping through on to the floor.

She died a few minutes after I first saw her, undelivered.

The third case was partial *placenta previa*, with profuse flooding during labor, so that I became alarmed and hurried off for assistance. I was gone but a few minutes, to return and find the child delivered.

The pains had suddenly increased in force and accomplished the delivery.

The fourth case was at seven months.

The mother, one morning, while on the vessel urinating, felt a gush of something, and found the chamber half full of blood. This recurred shortly after, when I was summoned.

Dr. A. F. A. King was called in consultation, and one or the other of us remained with her constantly until the following day, when, the hemorrhage recurring, labor was induced, and the child delivered—dead. The mother recovered without a bad symptom.

Adherent placenta.—There were three cases in which the placenta was entirely adherent.

This does not include cases of partial adhesions which were easily separated.

The first of these cases died of septicemia, the placenta undelivered: undoubtedly bad practice.

The second case also died of septicemia. It was the second child of the mother, the placenta at the first labor having been partially adherent, but easily removed by the hand. Recovery after the first labor was prompt.

The case now under consideration was a breech presentation and a natural labor until the third stage, when the placenta was found to be entirely adherent. It was removed piecemeal with great difficulty, Dr. W. P. Johnston in consultation.

The third case of adherent placenta recovered, the placenta likewise having been removed with great difficulty.

Of course, there can be no doubt of the proper treatment of such cases. Why the placenta was left in the first case I can not at this time recall.

Case 134 was of interest in that it was a six and a half month's child, weighed two and a half pounds, and lived. It was rolled up in flannel and kept under the stove for three days, when breast milk was dropped into its mouth, drop at a time, until after a few days it began to nurse.

At 4 months of age he weighed seventeen pounds, and I believe is now nearly old enough to vote.

Puerperal convulsions.—Three cases. One case (52) died on third day, the convulsions continuing after birth of child. This patient had violent headache at intervals during whole pregnancy, and was in a constant state of nervous excitement from ill-treatment by husband. Autopsie showed "adhesion of *dura mater* with clot at base of right middle lobe of cerebrum as large as a hickory nut. Also about one fluidounce of serum at base of brain."

Puerperal fever.—Five cases, two of which, those with adherent placenta, died.

The other three recovered without bad complications. This does not include cases seen in consultation, and which were not in my own practice.

Chorea in Pregnancy.—Two cases, both severe, one excessively violent. Both recovered. Sulphate of zinc in doses of ten grains every four hours seemed to cure the disease.

In case 97 there was retention of a dead six months' fetus *in utero* for three and a half months. The mother, when six months gone, received a severe shock from running against a half-open door in the dark.

Motions of the child, which had been very active ceased, and symptoms of pregnancy disappeared. This was April 15th. I waited until July 3d, when, no signs of labor appearing, brought it on artificially, and delivered a six months' fetus in a state of good preservation, in a condition of commencing adipocire.

Recovery was prompt for mother.

Hydatids.—Two cases, both about fifth month of gestation.

In another case, one of simulated pregnancy, the woman believed herself pregnant up to full term: felt motions and had other symptoms. She had already had one child. I saw her frequently during the supposed pregnancy, and was finally sent for to attend her in labor, as pains had begun.

She appeared very small in the abdomen, and the hand upon it failed to detect any uterine tumor.

Vaginal examination showed the uterus unimpregnated.

Mrs. C. was greatly astonished when I informed her she was not even pregnant. At first refused to believe it and was indignant, then, when satisfied I was correct, was greatly mortified.

This was the more remarkable as the woman was small in stature and very thin, not weighing at her best over ninety pounds.

Puerperal Mania.—Two cases. Recovery.

Monstrosities.—Two cases of acephalus: one case partial development of brain; eyelids closed by membrane, and a

large proportion of small intestines outside the abdominal cavity at the umbilicus, hare lip and cleft palate. Specimen in the Army Medical Museum.

Talipes varus.—Three cases.

Mortality.—Five deaths; two from *placenta praevia*; two from *septicemia* following adherent placenta; one from puerperal convulsions; just one per cent.

But the two cases of *placenta praevia* hardly belong to the list, for one was dead when I first saw her, and the other in *articulo mortis*.

So that, eliminating these two, there were three deaths in the five hundred cases, or three-fifths of one per cent. In closing, I apologize for not having been able to work out the details of these cases more completely.

It has been a much greater labor than I anticipated, and I have only at the last minute been able to complete the paper to this point.

I leave deductions and discussion to the Society.

DR. T. C. SMITH, in opening the discussion, said there was much in Dr. Prentiss' paper to commend, especially as it was in the line of work laid out by the Society. He indorsed what had been said concerning the necessity for teaching obstetrics as other branches of medicine were taught, that is, clinically. Something more should be provided for students to study midwifery than manikins. If they were going to practice on manikins, it would be right to continue to teach them in that manner; but if they were to attend women in their greatest trials, they should be taught at the bedside how to follow their calling.

The weight of new born infants, as given by Dr. Prentiss, is greater than that stated in the text books. Authorities give the average weight of infants at birth at from six and a half to seven and quarters pounds, while Dr. Prentiss' figures are a fraction over eight pounds. Dr. Smith rarely sees a child born that weighs as little as seven pounds; on the contrary, he delivers more children weighing twelve pounds than those weighing seven.

He thinks Dr. Prentiss is in error when he credits seven cases to the fifth and sixth presentations of the vertex. When either of these presentations is observed, it is to be regarded as transitional, and not an original position; consequently the doctor is wrong when he assumes that in so many of his cases these discarded presentations were found to exist.

Dr. Prentiss is to be commended for his frequent recourse to instrumental delivery. His results prove that his practice was correct. He would ask Dr. Prentiss if he had had any cases of vesico-vaginal fistula, or other serious injury which he could attribute to the use of forceps.

An interesting fact brought out by Dr. Prentiss is that in five hundred cases he did not find one in which marked deformity of the pelvis existed. The inference is, that women with deformed pelvis are not often met with in this locality.

Dr. Smith did not wish to be considered hard-hearted when he said he was glad Dr. Prentiss had reported some deaths in his obstetrical practice. When a doctor loses a few patients under such circumstances he learns to be conservative, and is charitable towards his professional brother who may be unfortunate enough to have a case terminate unfavorably. When a practitioner boasts that he has never lost a woman in confinement, it is to be inferred that his obstetrical experience is not great, or that he practises a faultless system. In either case, the loss of a patient takes the vanity out of him, and gives him something to think about.

Inasmuch as Dr. Prentiss had reported so few cases of septic infection in the patients delivered by him, it might be well to ask if this immunity had been secured through the use of antiseptics, and he would further ask the doctor to what extent he resorted to those agents.

Dr. WINTER, in referring to one of Dr. Prentiss' monstrosities, the one having but one eye, in the middle of the forehead, and an umbilical tumor which contained the intestines, said that two years later he was called to the same woman, who gave birth to another monstrosity, that the labor was perfectly natural until after the shoulders were born, then the body came very slowly, and finally stopped at the hips.

The child died in this position. The doctor sent home for his instruments, and, on receiving them, introduced a hook under the knee, and brought down one leg, and then the other in the same manner, which left the child sitting in his mother's vulva. Fearing that he had a case like the double girl to deal with, he asked for assistance, but before the messenger left the house he succeeded, after considerable effort, in delivering what proved to be a tumor attached to the child's buttock, and nearly as large as the child's body. It was filled with material of a jelly-like consistency. He has had over four hundred cases of labor, with but four or five deaths, nine cases of twins, and one of triplets.

Dr. Fry said, in discussing the interesting paper presented by Dr. Prentiss, he would limit his remarks to a single feature of the many introduced, viz., *mortality*. The chief aim in practising obstetrics is to save life.

Dr. Prentiss is to be congratulated on the fact that the average duration of the labors reported was ten hours for multiparae and sixteen for primiparae—a result indicating the judicious use of forceps. This instrument was applied in eight per cent of the total number of cases reported, and in thirteen per cent of the last three hundred and sixty labors. This practice is conservative by removing those debilitating effects of prolonged labor which leave the exhausted patient susceptible to the development of post-partum complications.

Deaths resulting from child bearing are to a great extent avoidable.

In these five hundred labors Dr. Prentiss has lost one per cent of his cases. Leaving out of consideration the two fatal cases of placenta previa, because not seen until midlamb, his mortality is reduced to three-fifths of one per cent. Deaths from placenta previa are to a certain extent avoidable. Gushes of blood from the vagina after the seventh month of gestation usually lead to an early recognition of the complication. The induction of premature labor is earnestly demanded. Delay may sacrifice the mother's life, while that of the infant is already precarious. The recognition of placenta previa is rarely made out before the fetus has reached a viable age, and its chances of surviving are

scarcey lessened by induction of premature labor, while the mother's are greatly increased.

Dr. Prentiss reports three cases of puerperal convulsions and one death.

Death in this class of cases is frequently avoided by the systematic examination of the urine of all pregnant women, and by the induction of premature labor, which latter expedient may be demanded by suitable cases.

I do not wish to infer that in any of the above cases Dr. Prentiss had neglected to use every means to save his patients.

Two cases of chorea complicating pregnancy, with recovery of both mothers, is reason to congratulate the author.

Dr. Prentiss mentions the fatal termination of two cases of septicemia.

Deaths from this cause are pre-eminently avoidable, and, too, it is a cause which, directly and indirectly claims more victims than all others connected with the child-bearing process.

Let us suppose that A. and B. are practising physicians of equal merit; that they have an equal obstetrical experience; that they practise in the same social element—in fact, let us imagine the surroundings which affect the mortality in the obstetric practice of each to be the same in all respects. Now A. is a firm believer in the germ theory of disease. He carries out rigid antiseptic precautions in all cases of confinements, he uses every effort to prevent the transference of germs to the genitalia of his parturient cases.

B., on the contrary, has no faith in the belief, and takes no pains to avoid infection.

Or, we can imagine that he is not so indifferent but considers that cleanliness is all that is necessary.

Now, if we could compare the statistics of the two in a large series of cases, the percentage of mortality would be greatly in favor of the practice of A.

This assertion is based upon the remarkable effect of the introduction of antiseptic precautions into maternity and private practice.

The mortality has been reduced to figures that will compare favorably with those presented here to-night. At the maternities of Prague and Copenhagen the death rate during

the past four or five years has averaged about one in two hundred labors, and at the *Parister Pavillon* in Paris no death in nearly one thousand labors.

Among midwives, since antiseptic precautions have been made compulsory, two series, of over one thousand each, have been collected with only three deaths apiece.

Dr. KING.—There had been no representation of the deformity of the pelvis. It would seem to be rare in this country as compared to Europe. There would seem to be more cases of hydrocephalus in this country. The books tell us that we will meet with one case in 2,000 of 5,000 labors, but Dr. Prentiss met with it in 30 labors.

The presentation is extremely unreliable. The head may be in one position when the labor begins and as labor progresses it may be entirely changed. Throughout these statistics there is a general resemblance to those found in the books.

The transverse position is met with about once in fifty cases. The brow, face, and vertex presentations change so frequently that we never know what it was before we make it out, and we will never know what it will be if it is let alone. These changes are spontaneous.

He thought that Dr. Smith was mistaken in the weight of the children mentioned. The weights are too often exaggerated by enthusiastic friends. They are more usually weighed by the old fashioned spring scales which are not very accurate. He had only met with one child which weighed thirty pounds. It was a male, had gone over the time, was covered with vermin pustules, and its head was an inch larger in each of its diameters than that usually recognized.

Dr. J. V. THOMSON.—Papers and books are constantly being written on antiseptic midwifery, in which he takes an interest. What Dr. Fay calls perfect antisepsis he did not consider such. Perfect antisepsis cannot be applied to midwifery. It is one of the most difficult things in general surgery to keep a wound aseptic. Where the surgeon fails to do with caution he often fails to secure asepsis. He may irrigate and observe all the rules of antiseptic surgery and then not accomplish the desired end. The wound is dressed and covered

with antiseptic gauze and bandages, and the greatest care may be taken to prevent the germs from entering it, but even then suppuration and septicæmia may take place. Then in obstetric practice such results are claimed are impossible. It is simply cleanliness. In surgery also cleanliness accomplishes a great deal. Asepsis is secured simply because it is cleanliness.

If one should inject into the puerperal uterus enough corrosive sublimate or carbolic acid to kill the germs, it would do great injury to the woman. After labor the secretions are going on all the time, and the patient is exposed to the dangers of the absorption of septic material.

In the Rotunda Hospital, where the favorable change is reported, it was only due to cleanliness. This is not antiseptic practice, but cleanliness.

Who ever expected to operate on piles antiseptically? Or use antiseptic surgery in the bladder? It is impossible to expect anything more than can be gained by cleanliness. He was not speaking against the practice of cleanliness, but disputed that such practices meant antiseptic surgery; he had always been a firm believer in and practised antiseptic surgery, and would not antagonize the practice in obstetrics. What he claimed was, that it was impossible to apply perfect asepsis in obstetric practice.

Dr. HAGNER believed in disinfecting the puerperal uterus. Dr. Fry did not mean antisepsis, such as Dr. Thompson would use in dressing a wound, but he did mean something more than mere cleanliness. He thought the introduction of iodoform suppositories in the uterus would do good. The vagina is not an open tube, but is closed by the folds of mucous membrane, and it is not so easy for germs to get into it. By using antiseptic precautions we may not kill the germs, but we will cripple them. He believed in the antiseptic pad. It is quite remarkable that Dr. Prentiss should have sowed up the perineum twenty three years ago. He thought the primary operation was introduced much later, in fact within the last fifteen years.

Dr. THOMPSON — Iodoform will not kill bacteria, but it has been shown by laboratory experiments that it prevents secretions and sterilizes the field and may thus do good. Disin-

fecting the parts with water will do just as much good as weak solutions of carbolic acid, but it will not kill the germs. One cannot operate on a cleft palate antiseptically, but he would use cleanliness. So we may secure better results by washing out the vagina, but we do not get the results of true antiseptic surgery.

Dr. W. W. JOHNSTON was surprised to hear Dr. THOMPSON discourage the use of antiseptics in midwifery. Antiseptic surgery is an attempt to destroy poisonous germs, but it is yet imperfect in its methods and often unsuccessful. The time may come when every wound can be made absolutely aseptic, but it has not come yet. Then why should we exclude obstetric practice from the benefits of what may be still an imperfect art? Obstetrics in the future may have the highest division of antiseptic practice. Already since its introduction the whole field of obstetrics has been changed, and better results can be confidently expected.

Dr. KING.—The *obstetrician* did not expect to secure absolute perfection in antisepsis.

Dr. THOMPSON.—In antiseptic surgery, which he had been faithfully practising ever since it was first introduced by Lister, the results which were claimed in obstetrics had not been obtained. In a recent case upon which he had operated, he used antiseptic dressings and did not look at the wound for two weeks after the day of operation. Antiseptic is one of the greatest advances in modern surgery. In order to get good results, it is necessary to thoroughly cleanse all the instruments and allow them to soak in the antiseptic solutions; the operator should thoroughly disinfect himself, the part should be kept clean; and the proper dressing should be applied.

Dr. KING.—A solution of carbolic sublimate 1 to 10,000 is sufficient to prevent the development of germs. If the injections washed out 5,000,000 and left 5,000,000 it would do some good. The more germs are left the worse it is for the patient. If the vagina is washed out and then protected by the iodiform gauze and pad, it would be about as near antiseptic as possible of Dr. THOMPSON's cases. Dr. PRENTISS did not use anti-

sepsis. The antisepsis of obstetrics cannot properly be compared to that of surgery. A certain number of natural cases will get well without any antisepsis. By examining the mortality statistics of lying-in hospitals ten years ago and now we will see the advantage of antisepsis. The mortality was large then, but now it is less than one per cent. Such results are due to careful antisepsis and not simply to cleanliness.

Dr. FRY wished to add a few words to what he had already said. Dr. Thompson claims that cleanliness accomplishes all the good that is ascribed to the use of antiseptics, and that the employment of boiled water is as efficient as that of antiseptic solutions. Further, he argues, that because the vaginal and uterine surfaces cannot be made perfectly antiseptic, douches are valueless.

Now, if mere cleanliness will accomplish the purpose, why do he and the surgeon he quotes use *boiled* water? He boils it because ebullition destroys the micro-organisms contained in the water. Then, if this is advisable, why does he object to adding an agent which is known to be capable of destroying germs? Not only those in the water, but the organisms with which the solution comes in contact. Solutions of bichloride of mercury have greater microbicidal properties than have been mentioned to-night. The bichloride will prevent the development of pathological micro organisms in the proportion of 1 to 40,000, it will destroy them in 1 to 20,000. Boiling is not always effectual in sterilizing water which contains spore-producing bacteria. Spores possess an incredible vitality.

But it has been demonstrated practically that cleanliness is not *per se* sufficient to overcome puerperal septic infection.

If we will study the history of puerperal fever and the high mortality that existed in hospitals, we will find that the death rate diminished in proportion to the measures employed to combat the disease. We will find that ventilation, isolation, and *cleanliness* were strictly enforced, and that while the death rate decreased it still remained high. The employment of antiseptic agents, however, in conjunction with these means immediately brought about a reformation, and the statistics of maternities can now be brought to compare

with the best of those in private practice, and epidemics of puerperal fever no longer exist.

In regard to the second proposition of Dr. Thompson that it is useless to employ antiseptic vaginal and uterine douches, because we cannot render the canal perfectly antiseptic, I would add that micro-organisms, during development and growth, evolve a poison, *ptomaine sulfur*, which when absorbed gives rise to phenomena of infection. The intensity of the symptoms is in proportion to the amount of poison absorbed. Now, if we employ injections to destroy these micro-organisms and prevent their multiplication, we limit the amount of ptomaine generated by them in proportion to the microbial power of the solution employed.

In this discussion antiseptic *precautions* and antiseptic *treatment* are confounded. Reference is made to antiseptic vaginal and uterine injections, to iodiform, suppositories, etc., without distinction. These do not belong to antiseptic precautions properly speaking, and their use is not indicated unless there exists a necessity for antiseptic treatment.

In antiseptic precautions the agents are used externally upon the hands, instruments, etc. Every effort is made to prevent the conveyance of germs to the parts by applying the antiseptics to the *vehicles of contagion*.

If the necessity for douches arises, it indicates that these precautions have been insufficient.

Having gained a foothold, the germs manifest their presence by the occurrence of fluid lethargy or by evidence of toxic poisoning, and then we must combat them with antiseptic injections, etc.

Dr. Cook had had two cases where the women said they did not know that they were pregnant. The first was an uninduced primipara who boasted that she had had her menses regularly during the whole pregnancy. The other was a French-woman, the mother of several children. He had been called to her during the summer of 1897 and supposed she had gastritis catarrh. She said she was not pregnant nor, indeed, was it suspected. Dr. W. W. Johnson saw the case with him and malignant disease was suspected and the matter ejected from the stomach was examined without shedding any light on the subject. Not long since he was called to

see this patient and found her being treated with domestic remedies for the colic. Her abdomen was covered with cataplasms. She now insisted that she could not be pregnant, but he delivered her in about an hour of a well-developed child.

Dr. PRENTISS, in closing the discussion, said he had made no attempt to tabulate the ruptures of the perineum. He had had but one case in which there was rupture into the rectum, but none where the rupture extended into the bladder. In this case, a breech delivery in a primipara, forceps were not used, there was no rupture observed at the time of birth, and the nurse made examination for rupture and reported none. She progressed favorably until the eighth day, when, there being a spontaneous evacuation of feces, he made an examination and found a rupture into the rectum, due to sloughing of perineum.

Had not noted any case of deformed pelvis.

Had not had a case of post partum hemorrhage.

He does not always give ergot, but depends upon the circumstances of the case. He does not know why he should have had so few cases of puerperal fever. There were a few mild cases of septicemia with slight fever and some tenderness. Of the two cases of retained placenta, the treatment of the first was indefensible in leaving the placenta *in utero*, and he could not now remember why he left it. In the other case the placenta was removed with the assistance of Dr. W. P. Johnston. Intra-uterine injections of carbolic acid were subsequently used, but patient died. He had not taken the anti-septic precautions in the sense referred to by Dr. Fry. He does not interfere with the conditions of normal labor; does not give ante partum injections. Antiseptic injections were only given in cases of offensive lochia. The vagina is a closed tube, as stated by Dr. Hagner, and injections are liable to introduce the germs of disease, therefore they should be limited to those cases that require them. Injections have very little effect in killing bacteria. Some forms of bacteria are innocuous, or even perhaps beneficial, while others destroy life. There are two sides to antiseptic midwifery. Another cause of septicemia is often overlooked, viz., leaving small shreds of the membranes in the vagina or

uterus which result in an offensive discharge. Every particle of the membranes should be removed at the time of delivery of placenta.

During the past fifteen years ruptures in primiparae had been quite common. It had been his uniform practice to sew them up at once, and he usually secured primary union.

In all instances where weight was given, he had weighed the children, so these weight were accurate. Had had but two weighing over twelve pounds. The first seemed enormous and weighed twelve and one-half and the second twelve and one-half.

NO. 1101 14th STREET,
WASHINGTON, D. C.

